

In the Claims

1-73. (canceled).

74 (original) A method of simultaneously producing multiple nanostructures of a predetermined length, the method comprising:

coating at least a portion of multiple tips formed on a first substrate with a catalyst,

wherein each respective tip comprises a base and an apex;

positioning a first surface of a second substrate distal to the multiple tips, wherein the

distance of the first surface of the second substrate from the multiple tips

correlates with the maximum predetermined length of the multiple

nanostructures; and

forming the multiple nanostructures between the respective apexes of the tips and the

surface of the second substrate.

75 (original) The method of claim 74 wherein the nanostructure comprises a carbon nanotube.

76 (original) The method of claim 74 wherein the portion of a tip coated with the catalyst comprises the base of the tip.

77 (original) The method of claim 74 wherein the portion of a tip coated with the catalyst comprises the apex of the tip.

78 (original) The method of claim 74 wherein the nanostructures are formed by additional steps comprising:

flowing a carbon containing gas over the catalyst coated apexes to grow carbon nanotubes protruding from the multiple catalyst coated tips until further growth is limited by the second substrate; and
flushing an area between the first substrate and the second substrate with a nonreactive gas.

79 (original) The method of claim 74 wherein the first surface of the second substrate positioned distal to the multiple tips comprises a conductive material.

80 (original) The method of claim 74 additionally comprising the step of applying a voltage differential between the second substrate and the multiple tips which is operative to shorten the length of the respective carbon nanotubes grown on the multiple tips.

81 (original) The method of claim 74 additionally comprising the step of applying a voltage differential between the first surface of the second substrate and a second surface of the second substrate, wherein the voltage application is operative to cleave two or more of the carbon nanotubes from the second substrate.

82 (currently amended) The method of claim 74 additionally comprising the step of applying a voltage differential between the second substrate and the multiple tips which is operative to cleave two or more of the carbon nanotubes from the second substrate and shorten the length of the respective carbon nanotubes grown on the multiple tips, wherein the voltage comprises between about 0.5 and about 50 volts.

83 (original) The method of claim 74 additionally comprising the step of: applying a liquid phase chemical to cleave the carbon nanotubes from the second substrate and shorten the cleaved nanotubes.

84 (original) The method of claim 74 additionally comprising the step of: applying a gas phase chemical to cleave the carbon nanotubes from the second substrate and shorten the cleaved nanotubes.

85 (original) The method of claim 74 additionally comprising the steps of flowing a carbon containing gas over the catalyst coated apexes comprises: placing the first substrate combined with the second substrate into a furnace; heating the furnace until the furnace reaches a temperature of at least about 750° C.; flowing gas into the furnace wherein the gas comprises one of: H₂, CO, ethanol and methane.

86 (original) The method of claim 85 wherein the gas is flowed into the furnace for a period of about 15 minutes or less.

87 (original) The method of claim 85 additionally comprising the steps of: cooling the furnace to about room temperature; and flowing argon into the furnace while it is cooled to about room temperature.

Claims 88-93 (withdrawn).

94 (new) The method of claim 74 additionally comprising the step of applying a voltage differential between the second substrate and the multiple tips which is operative to cleave two or more of the carbon nanotubes from the second substrate and shorten the length of the respective carbon nanotubes grown on the multiple tips, wherein the voltage comprises between about 1.5 and about 50 volts.